



9/09/04

15w

PTO/SB/21 (04-04)  
Approved for use through 07/31/2006. OMB 0651-0031  
U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

<b>TRANSMITTAL FORM</b>  (to be used for all correspondence after initial filing)	Application Number	10/791,377
	Filing Date	March 2, 2004
	First Named Inventor	Dantus et al.
	Art Unit	not yet assigned
	Examiner Name	not yet assigned
Total Number of Pages in This Submission	Attorney Docket Number	6550-000057/CPE

ENCLOSURES (check all that apply)				
<input type="checkbox"/> Fee Transmittal Form  <input type="checkbox"/> Fee Attached  <input type="checkbox"/> Amendment / Reply  <input type="checkbox"/> After Final  <input type="checkbox"/> Affidavits/declaration(s)  <input type="checkbox"/> Extension of Time Request  <input type="checkbox"/> Express Abandonment Request  <input checked="" type="checkbox"/> Information Disclosure Statement  <input type="checkbox"/> Certified Copy of Priority Document(s)  <input type="checkbox"/> Response to Missing Parts/ Incomplete Application  <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s)  <input type="checkbox"/> Licensing-related Papers  <input type="checkbox"/> Petition  <input type="checkbox"/> Petition to Convert to a Provisional Application  <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address  <input type="checkbox"/> Terminal Disclaimer  <input type="checkbox"/> Request for Refund  <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Technology Center (TC)  <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences  <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief)  <input type="checkbox"/> Proprietary Information  <input type="checkbox"/> Status Letter  <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below):  <b>Form 1449; copies of 2 foreign documents; copies of 97 other documents; and return postcard.</b>		
<table border="1"><tr><td>Remarks</td><td>The Commissioner is hereby authorized to charge any additional fees that may be required under 37 CFR 1.16 or 1.17 to Deposit Account No. 08-0750. A duplicate copy of this sheet is enclosed.</td></tr></table>			Remarks	The Commissioner is hereby authorized to charge any additional fees that may be required under 37 CFR 1.16 or 1.17 to Deposit Account No. 08-0750. A duplicate copy of this sheet is enclosed.
Remarks	The Commissioner is hereby authorized to charge any additional fees that may be required under 37 CFR 1.16 or 1.17 to Deposit Account No. 08-0750. A duplicate copy of this sheet is enclosed.			

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT			
Firm or Individual name	Harness, Dickey & Pierce, P.L.C.	Attorney Name Michael J. Lang, Ph.D.	Reg. No. 51,120
Signature			
Date	09/08/2004		

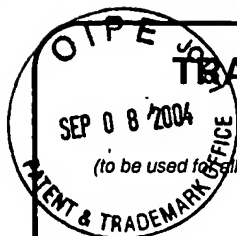
CERTIFICATE OF TRANSMISSION/MAILING			
I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.			
Typed or printed name	Michael J. Lang, Ph.D.	Express Mail Label No.	EV 531 989 861 US (9/8/2004)
Signature		Date	09/08/2004

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

EV 531 989 861 US

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



# TRANSMITTAL FORM

(to be used for all correspondence after initial filing)

Application Number	10/791,377
Filing Date	March 2, 2004
First Named Inventor	Dantus et al.
Art Unit	not yet assigned
Examiner Name	not yet assigned
Attorney Docket Number	6550-000057/CPE
Total Number of Pages in This Submission	

## ENCLOSURES (check all that apply)

<input type="checkbox"/> Fee Transmittal Form <input type="checkbox"/> Fee Attached <input type="checkbox"/> Amendment / Reply <input type="checkbox"/> After Final <input type="checkbox"/> Affidavits/declaration(s) <input type="checkbox"/> Extension of Time Request <input type="checkbox"/> Express Abandonment Request <input checked="" type="checkbox"/> Information Disclosure Statement <input type="checkbox"/> Certified Copy of Priority Document(s) <input type="checkbox"/> Response to Missing Parts/Incomplete Application <input type="checkbox"/> Response to Missing Parts under 37 CFR 1.52 or 1.53	<input type="checkbox"/> Drawing(s) <input type="checkbox"/> Licensing-related Papers <input type="checkbox"/> Petition <input type="checkbox"/> Petition to Convert to a Provisional Application <input type="checkbox"/> Power of Attorney, Revocation Change of Correspondence Address <input type="checkbox"/> Terminal Disclaimer <input type="checkbox"/> Request for Refund <input type="checkbox"/> CD, Number of CD(s) _____	<input type="checkbox"/> After Allowance Communication to Technology Center (TC) <input type="checkbox"/> Appeal Communication to Board of Appeals and Interferences <input type="checkbox"/> Appeal Communication to TC (Appeal Notice, Brief, Reply Brief) <input type="checkbox"/> Proprietary Information <input type="checkbox"/> Status Letter <input checked="" type="checkbox"/> Other Enclosure(s) (please identify below): <b>Form 1449; copies of 2 foreign documents; copies of 97 other documents; and return postcard.</b>
Remarks: The Commissioner is hereby authorized to charge any additional fees that may be required under 37 CFR 1.16 or 1.17 to Deposit Account No. 08-0750. A duplicate copy of this sheet is enclosed.		

## SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT

Firm or Individual name	Harness, Dickey & Pierce, P.L.C.	Attorney Name	Michael J. Lang, Ph.D.	Reg. No.	51,120
Signature					
Date	09/08/2004				

## CERTIFICATE OF TRANSMISSION/MAILING

I hereby certify that this correspondence is being facsimile transmitted to the USPTO or deposited with the United States Postal Service with sufficient postage as first class mail in an envelope addressed to: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on the date shown below.

Typed or printed name	Michael J. Lang, Ph.D.	Express Mail Label No.	EV 531 989 861 US (9/8/2004)
Signature		Date	09/08/2004

This collection of information is required by 37 CFR 1.5. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.



**PATENT**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Application No.: 10/791,377  
Filing Date: March 2, 2004  
Applicant: M. Dantus et al.  
Group Art Unit: not yet assigned  
Examiner: not yet assigned  
Title: LASER SYSTEM USING ULTRA-SHORT LASER PULSES  
Attorney Docket: 6550-000057/CPE

---

Director of the United States Patent and Trademark Office  
P.O. Box 1450  
Alexandria, VA 22313-1450

**INFORMATION DISCLOSURE STATEMENT**

Sir:

Pursuant to 37 C.F.R. §§ 1.56, 1.97 and 1.98, Applicant hereby submits an Information Disclosure Statement for consideration by the Examiner.

**I. LIST OF PATENTS, PUBLICATIONS, AND OTHER INFORMATION**

The patents, publications and other information requested to be considered by the Office (except unpublished U.S. patent applications) are listed on Form 1449 attached hereto.

**II. COPIES**

A. \_\_\_\_ Submitted herewith is a legible copy of (i) each U.S. patent application publication and U.S. and foreign patent; (ii) each publication or that portion which caused it to be listed; (iii) for each cross-referenced pending U.S. application listed below in Section IV, the application specification including the claims, and any drawing of the application which caused it to be listed including the claims directed to that portion; and (iv) all other information or that portion which caused it to be listed.

B. \_\_\_\_ Any patents, publications or other information which are listed on Form 1449 or on the copies of PTO-892, but which are not enclosed herewith, were previously cited by or submitted to the PTO in one of the following applications which has been relied upon for an earlier filing date under 35 U.S.C. § 120:

U.S. Serial Number

U.S. Filing Date

C. X Because the present application was/is being filed after June 30, 2003, no copies of the U.S. patents or U.S. patent application publications which are listed on the attached Form 1449 are enclosed pursuant to the waiver of 37 C.F.R. § 1.98(a)(2)(i). Any foreign patent documents or non-patent literature listed on the attached Form 1449 are enclosed herewith.

D.\_\_\_\_ This is a PCT application in the entry of the National Phase in the United States. A copy of the International Search Report is attached for the Examiner's information. The documents listed on the International Search Report are listed on the attached Form-1449 for consideration by the Examiner and for listing on any patent resulting from this application. If the International Search Report was from the US, EPO, or JPO search authorities, copies of these references should have been supplied to the USPTO under the trilateral agreement and are believed to be in the file of the above-identified application. (MPEP 1893.03(g))

III. CONCISE EXPLANATION OF THE RELEVANCE (check at least one box)

A. X Except as may be indicated below in (B), all of the patents, publications or other information are in the English language (concise explanation not required).

B.\_\_\_\_ A concise explanation of the relevance of each patent, publication or other information listed that is not in the English language is as follows (see 37 C.F.R. § 1.98(a)(3)):

- 1.\_\_\_\_ See the attached foreign patent office communication from a counterpart foreign application.
- 2.\_\_\_\_ English translations are provided.
- 3.\_\_\_\_ Other:

C. X The following additional information is provided for the Examiner's consideration.

The following references appear somewhat more relevant than others cited herein: U.S. Patent Nos. 3,919,881; 3,988,704; 4,819,239; 4,913,934; 5,048,029; 5,585,913; 6,480,656; 6,504,612; and Weiner, A.M. (2000); Zheng, Z. (2001); Lozovoy, V.V. (2003). Notwithstanding, the Examiner is requested to review all of the cited references and make his/her own relevancy determinations.

IV. CROSS REFERENCE TO RELATED APPLICATION(S)

A. X The Examiner is advised that the following co-pending application(s) contain(s) subject matter that may be related to the present application. By bringing this(these) application(s) to the Examiner's attention, Applicant(s) does(do) not waive the confidentiality provisions of 35 U.S.C. § 122.

Serial No.  
10/265,211

Filing Date  
January 28, 2002

Art Unit

V. THIS IDS IS BEING FILED UNDER

A. X **37 C.F.R. § 1.97(b):** (check only one box)

1. \_\_\_\_ within three months of the filing date of a national application other than a continued prosecution application under § 1.53(d) (37 C.F.R. § 1.97(b)(1)). No fee or certification is required.

2. \_\_\_\_ within three months of the date of entry of the national stage as set forth in §1.491 in an international application (37 C.F.R. § 1.97(b)(2)). No fee or certification is required.

3. X before the mailing of a first Office Action on the merits (37 C.F.R. § 1.97(b)(3)). No fee or certification is required. In the event that a first Office Action on the merits has been issued, please consider this IDS under 37 C.F.R. § 1.97(c) and see the certification under 37 C.F.R. § 1.97(e) below; or, if no certification has been made, charge our deposit account a fee in the amount of \$180.00 as required by 37 C.F.R. § 1.17(p).

4. \_\_\_\_ before the mailing of a first Office Action after the filing of a request for continued examination under 37 C.F.R. § 1.114. No fee or certification is required.

B. \_\_\_\_ **37 C.F.R. § 1.97(c):** (check only one box)

before the mailing date of either any Final Office Action under 37 C.F.R. § 1.113, a Notice of Allowance under 37 C.F.R. § 1.311, or an action that otherwise closes prosecution.

1. \_\_\_\_ No certification; therefore, a fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).

2. \_\_\_\_ See the certification below. No fee is required.

C. \_\_\_\_ **37 C.F.R. § 1.97(d):**

after the mailing date of either a Final Office Action under 37 C.F.R. § 1.113 or a Notice of Allowance under 37 C.F.R. § 1.311, yet on or before payment of the issue fee.

1. \_\_\_\_ See the certification below. A fee in the amount of \$180.00 is required by 37 C.F.R. § 1.17(p).

VI. CERTIFICATION UNDER 37 C.F.R. § 1.97(e): (check only one box)

The undersigned hereby certifies that:

A. \_\_\_\_ each item of information contained in this IDS was first cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(1)). See further statement under 37 C.F.R. 1.704(d) below in section VII, if applicable; or

B. \_\_\_\_ no item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS (See 37 C.F.R. § 1.97(e)(2)).

C. \_\_\_\_ Some of the items of information were first cited in a communication from a foreign patent office. As to this information, the undersigned hereby certifies that each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of this IDS. As to the remaining information, the undersigned hereby certifies that no item of this remaining information contained in this IDS was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the undersigned after making reasonable inquiry, no item of information contained in this IDS was known to any individual designated in 37 C.F.R. § 1.56(c) more than three months prior to the filing of this IDS.

VII. STATEMENT UNDER 37 CFR 1.704(d)

The undersigned hereby states that:

\_\_\_\_ each item of information contained in this IDS was cited in a communication from a foreign patent office in a counterpart application and this communication was not received by any individual designated in 37 C.F.R. § 1.56(c) more than thirty days prior to the filing of this IDS.

VIII. PAYMENT OF FEES (check only one box)

A. \_\_\_\_ A check in the amount of \$180.00 is enclosed for the above-identified fee.

B. \_\_\_\_ Please charge Deposit Account No. 08-0750 in the amount of \$180.00 for the above-indicated fee. A duplicate copy of this paper is attached.

The above references are being cited only in the interest of candor and without any admission that they constitute statutory prior art, contain matter which anticipates the invention, or which would render the same obvious, either singly or in combination,

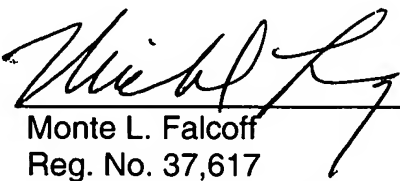
to a person of ordinary skill in the art. Furthermore, this Information Disclosure Statement shall not be construed as a representation that a search has been made.

If it is determined that this IDS has been filed under the wrong rule, the PTO is requested to consider this IDS under the proper rule (with a petition if necessary) and charge the appropriate fee to Deposit Account No. 08-0750.

Please charge any additional fees or credit any overpayment pursuant to 37 C.F.R. § 1.16 or § 1.17 to Deposit Account No. 08-0750.

Respectfully submitted,

Dated: 07/08/2004

By:   
Monte L. Falcoff  
Reg. No. 37,617  
Michael J. Lang, Ph.D.  
Reg. No. 51,120

HARNESS, DICKEY & PIERCE, P.L.C.  
P.O. Box 828  
Bloomfield Hills, Michigan 48303  
(248) 641-1600  
MLF/MJL/csd

FORM HDP-1449 (Based on Form PTO-1449)

ATTORNEY DOCKET NO.

SERIAL NO.

6550-000057/CPE

10/791,377

## PATENT AND TRADEMARK OFFICE

## INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

APPLICANT

Dantus et al.

FILING DATE

GROUP

March 2, 2004

not yet assigned

Sheet 1 of 10



## U.S. PATENT DOCUMENTS

Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
1.		2003/0099264	10/2002	Dantus et al.		
2.		3,919,881	11/1975	Metherell		
3.		3,988,704	10/1976	Rice et al.		
4.		4,655,547	4/1987	Heritage et al.		
5.		4,746,193	5/1988	Heritage et al.		
6.		4,819,239	4/1989	Sharp et al.		
7.		4,866,699	9/1999	Brackett et al.		
8.		4,913,934	4/1990	Sharp et al.		
9.		4,928,316	5/1990	Heritage et al.		
10.		5,034,613	7/1991	Denk		
11.		5,048,029	9/1991	Skupsky et al.		
12.		5,132,824	7/1992	Patel et al.		
13.		5,239,607	8/1993	da Silva et al.		
14.		5,526,171	6/1996	Warren		
15.		5,530,544	6/1996	Trebino et al.		
16.		5,585,913	12/1996	Hariharan et al.		
17.		5,754,292	5/1998	Kane et al.		
18.		5,759,767	6/1998	Lakowicz		
19.		5,774,213	6/1998	Trebino et al.		
20.		5,793,091	8/1998	Devoe		
21.		5,832,013	11/1998	Yessik et al.		

Examiner:

Date Considered:

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



<b>FORM HDP-1449 (Based on Form PTO-1449)</b>  <b>PATENT AND TRADEMARK OFFICE</b> <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)  Sheet 2 of 10	ATTORNEY DOCKET NO.	SERIAL No.
	6550-000057/CPE	10/791,377
	APPLICANT	
	Dantus et al.	
	FILING DATE	GROUP
	March 2, 2004	not yet assigned

U.S. PATENT DOCUMENTS						
Ref. Desig.	Examiner's Initials	Document Number	Date	Name	Class/ Subclass	(If appropriate) Filing Date
22.		5,936,732	8/1999	Smirl et al.		
23.		6,008,899	12/1999	Trebino et al.		
24.		6,042,603	3/2000	Dees et al.		
25.		6,057,919	5/2000	Machida et al.		
26.		6,111,251	8/2000	Hillenkamp		
27.		6,130,426	10/2000	Park et al.		
28.		6,166,385	12/2000	Webb		
29.		6,219,142	4/2001	Kane		
30.		6,259,104	7/2001	Baer		
31.		6,288,782	9/2001	Worster		
32.		6,316,153	11/2001	Goodman		
33.		6,327,068	12/2001	Silberberg et al.		
34.		6,344,653	2/2002	Webb		
35.		6,480,656	11/2002	Islam et al.		
36.		6,504,612	1/2003	Trebino		
37.		6,566,667	5/2003	Partli et al.		
38.		6,577,782	6/2003	Leaird et al.		
39.		6,621,613	9/2003	Silberberg et al.		
40.		6,678,450	1/2004	Franson		

Examiner:	Date Considered:
-----------	------------------

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>FORM HDP-1449 (Based on Form PTO-1449)</b>  <b>PATENT AND TRADEMARK OFFICE</b> <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)  Sheet 3 of 10	ATTORNEY DOCKET NO.	SERIAL No.
	6550-000057/CPE	10/791,377
	APPLICANT	
	Dantus et al.	
	FILING DATE	GROUP
	March 2, 2004	not yet assigned

FOREIGN PATENT DOCUMENTS							
Ref. Desig.	Examiner's Initials	Document Number	Date	Country	Class/ Subclass	Translation Yes	No
1.		WO 02 061799	01/2002	PCT			
2.		WO 00 70647	11/2000	PCT			

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)		
Ref. Desig.	Examiner's Initials	
1.		Anderson, M.E. et al.; "The effects of noise on ultrashort-optical-pulse measurement using SPIDER"; Appl. Phys. B 70 (Suppl.); 2000; pgs. S85-S93.
2.		Assion, A. et al.; "Control of Chemical Reactions by Feedback-Optimized Phase-shaped Femtosecond Laser Pulses"; Science Magazine, Vol. 282; October 30, 1998; pgs. 919-922.
3.		Baltuska, Andrius et al.; "Amplitude and phase characterization of 4.5-fs pulses by frequency-resolved optical gating"; Optics Letters, Vol. 23, No. 18, September 15, 1998; pgs. 1474-1476.
4.		Baltuska, Andrius et al.; "Visible pulse compression to 4 fs by optical parametric amplification and programmable dispersion control"; Optics Letters, Vol. 27, No. 5, March 1, 2002; pgs. 306-308.
5.		Baumert, T. et al.; "Femtosecond pulse shaping by an evolutionary algorithm with feedback"; Appl. Phys. B 65 (1997); pgs. 779-782.
6.		Belfield, K.D. et al.; "Two-photon photoinitiated polymerization"; J. Phys. Org. Chem. 13(12): 837-849 (December 2000).
7.		Bhattacharya, N. et al.; Phys. Rev. Lett. 88 (2002) 137901-1.
8.		Brattke, S. et al.; "Generation of Photon Number States on Demand via Cavity Quantum Electrodynamics"; Phys. Rev. Lett.; April 16, 2001; Vol. 86, No. 16; pp. 3534-3537.
9.		Brixner, T. et al.; "Feedback-controlled femtosecond pulse shaping"; Appl. Phys. B 70 (Suppl.) 2000; pgs. S119-S124.
10.		Broers, B. et al.; "Diffraction and focusing of spectral energy in multiphoton processes"; Phys. Rev. A; 1992; 46, 2749.
11.		Broers, B. et al.; "Large interference effects of small chirp observed in 2-photon absorption"; Opt. Commun. 1992, 91, 57.

Examiner:	Date Considered:
-----------	------------------

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>FORM HDP-1449 (Based on Form PTO-1449)</b>  <b>PATENT AND TRADEMARK OFFICE</b> <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)  Sheet 4 of 10	ATTORNEY DOCKET NO.	SERIAL NO.
	6550-000057/CPE	10/791,377
	APPLICANT	
	Dantus et al.	
	FILING DATE	GROUP
	March 2, 2004	not yet assigned

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)		
Ref. Desig.	Examiner's Initials	
12.		Bucksbaum, Philip; "An atomic dimmer switch"; Nature; November 19, 1998; Vol. 396; pp. 217-219.
13.		Buist, A.H. et al.; "Probing microscopic chemical environments with high-intensity chirped pulses"; Optics Letters 24, 244-246 (1999).
14.		Chilla, Juan L.A. et al.; "Direct determination of the amplitude and the phase of femtosecond light pulses"; January 1, 1991, Vol. 16, No. 1; Optics Letters; pgs. 39-41.
15.		Chu, K.C. et al.; "Direct measurement of the spectral phase of femtosecond pulses"; Optics Letters, Vol. 20, No. 8; April 15, 1995; pgs. 904-906.
16.		Clara et al.; "Femtosecond laser mass spectroscopy of ferrocenes: photochemical stabilization by bridged cyclopentadienyl rings?"; International Journal of Mass Spectrometry, Elsevier Science Publishers; Vol. 203, no. 1-3; December 26, 2000; pp. 71-81.
17.		Clement, Tracy Sharp et al.; "Single-Shot measurement of the amplitude and phase of ultrashort laser pulses in the violet"; January 1, 1995; Optics Letters, Vol. 20, No. 1; pgs. 70-72.
18.		Cormack, I.G. et al.; "Practical measurement of femtosecond optical pulses using time-resolved optical gating"; Optics Communications 194 (July 15, 2001); pgs. 415-424.
19.		Cumpston, B.H. et al.; "New Photopolymers based on Two-Photon Absorbing Chromophores and Application to Three-Dimensional Microfabrication and Optical Storage"; Mat. Res. Soc. Symp. Proc.; Vol 488.
20.		Cumpston, B.H. et al.; "Two-photon polymerization initiators for three-dimensional optical data storage and microfabtrication"; Letters to Nature, pp. 51-54.
21.		Dela Cruz, J.M. et al.; "Multiphoton intrapulse interference 3: Probing microscopic chemical environments"; J. Phys. Chem. A 2004.
22.		Dietrich, P. et al.; "Determining the absolute carrier phase of a few-cycle laser pulse"; Optics Letters, Vol. 25, No. 1, January 1, 2000; pgs. 16-18.
23.		Ding, Y.; "Femtosecond pulse shaping by dynamic holograms in photorefractive multiple quantum wells"; Optics Letters; May 15, 1997; Vol. 22, No. 10; pp. 718-720.
24.		Dorrer, C. et al.; "Direct space-time characterization of the electric fields of ultrashort optical pulses"; Optics Letters, Vol. 27, No. 7, April 1, 2002; pgs. 548-550.

Examiner:	Date Considered:
-----------	------------------

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>FORM HDP-1449 (Based on Form PTO-1449)</b>  <b>PATENT AND TRADEMARK OFFICE</b> <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)  Sheet 5 of 10	ATTORNEY DOCKET NO.	SERIAL No.
	6550-000057/CPE	10/791,377
	APPLICANT	
	Dantus et al.	
	FILING DATE	GROUP
	March 2, 2004	not yet assigned

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)		
Ref. Desig.	Examiner's Initials	
25.		Dorrer, Christophe et al.; "Precision and consistency criteria in spectral phase interferometry for direct electric-field reconstruction"; J. Opt. Soc. Am. B, Vol. 19, No. 5, May 2002; pgs. 1030-1038.
26.		Drexler, W. et al.; In vivo ultrahigh-resolution optical coherence tomography"; Optics Letters; September 1, 1999; Vol. 24, No. 17; pp. 1221-1223.
27.		Dudley, John M. et al.; "Complete Characterization of Ultrashort Pulse Sources at 1550 nm"; IEEE Journal of Quantum Electronics, Vol. 35, No. 4; April 1999; pgs. 441-450.
28.		Dudovich, N. et al.; "Transform-limited pulses are not optimal for resonant multiphoton transitions"; Phys. Rev. Lett. 86, 47-50 (2001).
29.		Gallmann, L. et al.; "Spatially resolved amplitude and phase characterization of femtosecond optical pulses"; Optics Letters, Vol. 26, No. 2, January 15, 2001; pgs. 96-98.
30.		Gallmann, L. et al.; "Techniques for the characterization of sub-10-fs optical pulses: a comparison"; Appl. Phys. B 70 (Suppl), 2000; pgs. S67-S75.
31.		Garcia-Ripoll, J.J. et al.; "Speed Optimized Two-Qubit Gates with Laser Coherent Control Techniques for Ion Trap Quantum Computing"; Physical Review Letters; Vol. 91, No. 5; October 10, 2003; pg. 157901-1 - 157901-4.
32.		Geindre, J.P. et al.; "Single-shot spectral interferometry with chirped pulses"; Optics Letters, Vol. 26, No. 20, October 15, 2001; pgs. 1612-1614.
33.		Goswami, D.; "Optical pulse shaping approaches to coherent control"; Physics Reports; 374 (2003); pg. 385-481.
34.		Goswami, D.; "Ultrafast Pulse Shaping approaches to Quantum Computing"; Indian Institute of Technology; December 24, 2003.
35.		Hacker, M. et al.; "Frequency doubling of phase-modulated, ultrashort laser pulses"; Appl. Phys. B 73; (2001); pgs. 273-277.
36.		Hasan, T. et al.; "Photodynamic Therapy of Cancer"; Chapter 40 in Holland Frei Cancer Medicine, BC Dekker Inc. (2003).
37.		Hillegas, C.W. et al.; "Femtosecond laser pulse shaping by use of microsecond radio-frequency pulses"; Optics Letters; May 15, 1994; vol. 19, No. 10; pp. 737-739.
38.		Hornung, Thomas et al.; "Adapting optimal control theory and using learning loops to provide experimentally feasible shaping mask patterns"; Journal of Chemical Physics, Vol. 115, No. 7; August 15, 2001; pgs. 3105-3111.

Examiner:	Date Considered:
-----------	------------------

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>FORM HDP-1449 (Based on Form PTO-1449)</b>  <b>PATENT AND TRADEMARK OFFICE</b> <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)  Sheet 6 of 10	ATTORNEY DOCKET NO.	SERIAL No.
	6550-000057/CPE	10/791,377
	APPLICANT	
	Dantus et al.	
	FILING DATE	GROUP
	March 2, 2004	not yet assigned

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)		
Ref. Desig.	Examiner's Initials	
39.		Hosseini, S. Abbas et al.; "Coherent control of multiphoton transitions with femtosecond pulse shaping"; Physical Review A, pgs. 033410-1-033410-7.
40.		Iaconis, C. et al.; "Direct Interferometric Techniques for Characterizing Ultrashort Optical Pulses"; IEEE Journal of Selected Topics in Quantum Electronics, Vol. 4, No. 2; March/April 1998; pgs. 285-294.
41.		Iaconis, C. et al.; "Spectral phase interferometry for direct electric-field reconstruction of ultrashort optical pulses"; Optics Letters, Vol. 23, No. 10, May 15, 1998; pgs. 792-794.
42.		Imeshev, G. et al.; "Engineerable femtosecond pulse shaping by second-harmonic generation with Fourier synthetic quasi-phase-matching gratings"; Optics Letters; June 1, 1998; Vol. 23, No. 11; pp. 864-866.
43.		Kaindl, Robert A. et al.; "Generation, shaping, and characterization of intense femtosecond pulses tunable from 3 to 20 $\mu\text{m}$ "; J. Opt. Soc. Am. B, Vol. 17, No. 12, December 2000; pgs. 2086-2094.
44.		Kakehata, Masayuki et al.; "Single-shot measurement of carrier-envelope phase changes by spectral interferometry"; Optics Letters, Vol. 26, No. 18, September 15, 2001; pgs. 1436-1438.
45.		Kane, Daniel J. et al.; "Single-shot measurement of the intensity and phase of an arbitrary ultrashort pulse by using frequency-resolved optical gating"; May 15, 1993, Vol. 18, No. 10 Optics Letters; pgs. 823-825.
46.		Kane, Daniel J. et al.; "Single-shot measurement of the intensity and phase of a femtosecond UV laser pulse with frequency-resolved optical gating"; July 15, 1994, Vol. 19, No. 14; Optic Letters; pgs. 1061-1063.
47.		Kim, D.S. et al.; "Femtosecond pulse distortion in GaAs quantum wells and its effect on pump-probe or four-wave-mixing experiments"; December 15, 1994; Physical Review B, Vol. 50, No. 24, pgs. 18 240-18 249.
48.		Kohler, Bern et al.; "Phase and intensity characterization of femtosecond pulses from a chirped-pulse amplifier by frequency-resolved optical gating"; March 1, 1995, Vol. 20, No. 5, Optics Letters; pgs. 483-485.
49.		Kosik, Ellen M. et al.; "The effects of noise on ultrashort optical pulse measurement using SPIDER"; The Institute of Optics, University of Rochester, Rochester, NY; pgs. 21-23.

Examiner:	Date Considered:
-----------	------------------

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>FORM HDP-1449 (Based on Form PTO-1449)</b>  <b>PATENT AND TRADEMARK OFFICE</b> <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)  Sheet 7 of 10	ATTORNEY DOCKET NO.	SERIAL NO.
	6550-000057/CPE	10/791,377
	APPLICANT	
	Dantus et al.	
	FILING DATE	GROUP
	March 2, 2004	not yet assigned

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)		
Ref. Desig.	Examiner's Initials	
50.		Kovtoun et al.; "Mass-correlated pulsed extraction: theoretical analysis and implemetation with a linear matrix-assisted laser desorption/ionization time of flight mass spectrometer"; Journal of the American Society for Mass Spectrometry, Elsevier Science Inc.; Vol 11, No. 10; October 2000; pp. 841-853.
51.		Lange, H. Rudiger et al.; "Reconstruction of the Time Profile of Femtosecond Laser Pulses Through Cross-Phase Modulation"; IEEE Journal of Selected Topics in Quantum Electronics, Vol. 4, No. 2; March/April 1998; pgs. 295-300.
52.		Larson, D.R. et al.; "Water soluble quantum dots for multiphoton imaging in vivo", Science 300 1434-6, (May 30, 2003).
53.		Leibfried, D. et al.; "Quantum information with trapped ions at NIST"; Journal of Modern Optics; April-May 2003; Vol. 50, no. 6/7; pg. 1115-1129.
54.		Lozovoy, V.V.; "Multiphoton intrapulse interference II: Control of two- and three-photon laser induced fluorescence with shaped pulses"; J. Chem. Phys. 118 (7): 3187-3196 (Feb. 15, 2003).
55.		Lu, Y.M. et al.; "Highly sensitive two-photon chromophores applied to three dimensional lithographic microfabrication: design, sysnthesis and characterization towards two-photon absorption cross section"; J. Mater Chem. 14(1): 75-80 (2004)
56.		Matuschek, N.; "Back-side-coated chirped mirrors with ultra-smooth broadband dispersion characteristics"; Applied Physics B; 71, pp. 509-522.
57.		Meshulach, D. et al.; "Adaptive real-time femtosecond pulse shaping"; J. Opt. Soc. Am. B; May 1998; Vol. 15, No. 5; pp. 1615-1619.
58.		Meshulach, D. et al.; "Adaptive ultrashort pulse compression and shaping"; Optics Communications 138 (1997); pgs. 345-348.
59.		Meshulach, M. et al.; "Coherent quantum control of multiphoton transitions by shaped ultrashort optical pulses"; Phys. rev. A 60, 1287-1292 (1999).
60.		Michelmann, K. et al.; "Measurement of the Page function of an ultrashort laser pulse"; Optics Communications, October 15, 2001; pgs. 163-170.
61.		Mitra et al.; "Nonlinear Limits to the Information Capacity of Optical Fibre Communications"; Nature, vol. 411, pp. 1027-1030 (June 28, 2001).
62.		Nicholson, J.W. et al.; "Noise sensitivity and accuracy of femtosecond pulse retrieval by phase and intensity from correlation and spectrum only (PICASO)"; J. Opt. Soc. Am. B; Vol. 19, No. 2; February 2002; pgs. 330-339.

Examiner:	Date Considered:
-----------	------------------

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>FORM HDP-1449 (Based on Form PTO-1449)</b>  <b>PATENT AND TRADEMARK OFFICE</b> <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)  Sheet 8 of 10	ATTORNEY DOCKET NO.	SERIAL No.
	6550-000057/CPE	10/791,377
	APPLICANT	
	Dantus et al.	
	FILING DATE	GROUP
	March 2, 2004	not yet assigned

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)		
Ref. Desig.	Examiner's Initials	
63.		Osborn, D.L. et al.; "Spectral and intensity dependence of spatially resolved two-photon conductivity defects on a GaAsP photodiode"; J. Appl. Phys. 89, 626-633 (2001).
64.		Panasenko, Dmitriy et al; "Single-shot sonogram generation for femtosecond laser pulse diagnostics by use of two-photon absorption in a silicon CCD camera"; August 15, 2002, Vol. 27, No. 16; Optics Letters; pgs. 1475-1477.
65.		Pastirk, I. et al.; "Selective two-photon microscopy with shaped femtosecond pulses"; Opt. Express 11, 1695-1701 (2003).
66.		Paye, J.; "How to Measure the Amplitude and Phase of an Ultrashort Light Pulse with an Autocorrelator and a Spectrometer"; IEEE Journal of Quantum Electronics, Vol. 30, No. 11; November 1994; pp. 2693-2697.
67.		Postnikova, B.J. et al.; "Towards nanoscale three-dimensional fabrication using two-photon initiated polymerization and near-field excitation"; Microelectron. Eng. 69(2-4): 459-465 (September 2003).
68.		Reid, D.T. et al.; "Amplitude and phase measurement of mid-infrared femtosecond pulses by using cross-correlation frequency-resolved optical gating"; Optics Letters, Vol. 25, No. 19, October 1, 2000; pgs. 1478-1480.
69.		Roy, I. et al.; "Ceramic-based nanoparticles entrapping water-soluble photosensitizing drugs: A novel drug carrier system for photodynamic therapy"; J. Am. Chem. Soc. 125:7860-7865 (2003).
70.		Schreier, F. et al.; "Femtosecond pulse shaping with a stratified diffractive structure"; Optics Communications 185 (2000); pp. 227-231.
71.		Sharman, W.M. et al.; "Photodynamic therapy: basic principles and clinical applications"; Drug Discovery today 4(11):508-517 (1999).
72.		Sharman, W.M. et al.; "Targeted photodynamic therapy via receptor mediated delivery systems"; Adv. Drug Delivery Rev. 56(1):53-76 (January 2004).
73.		Spielmann, C. et al.; "Ultrabroadband Femtosecond Lasers"; IEEE Journal of Quantum Electronics; April 1994; Vol. 30, No. 4; pp.1100-1114.
74.		Stobrawa, G. et al.; "A new high-resolution femtosecond pulse shaper"; Appl. Phys. B 72 (2001); pgs. 627-630.
75.		Sullivan, A. et al.; "Quantitative investigation of optical phase-measuring techniques for ultrashort pulse lasers"; J. Opt. Soc. Am. B, Vol. 13, No. 9, September 1996; pgs. 1965-1978.

Examiner:	Date Considered:
-----------	------------------

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<b>FORM HDP-1449 (Based on Form PTO-1449)</b>  <b>PATENT AND TRADEMARK OFFICE</b> <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)  Sheet 9 of 10	ATTORNEY DOCKET NO.	SERIAL NO.
	6550-000057/CPE	10/791,377
	APPLICANT	
	Dantus et al.	
	FILING DATE	GROUP
	March 2, 2004	not yet assigned

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)		
Ref. Desig.	Examiner's Initials	
76.		Sun, H.B. et al.; "Two-photon laser precision microfabrication and its applications to micro-nano devices and systems"; J. Lightwave Technol. 21(3): 624-633 (March 2003).
77.		Sweetser, John N. et al.; "Transient-grating frequency-resolved optical gating"; April 15, 1997, Vol. 22, No. 8; Optics Letters; pgs. 519-521.
78.		Trebino, R. et al.; "Measuring Ultrashort Laser Pulses Just Got a Lot Easier!"; Optics & Photonics News; June 2001; pg. 22-25.
79.		Trebino, Rick et al.; "Measuring ultrashort laser pulses in the time-frequency domain using frequency-resolved optical gating"; Rev. Sci. Instrum. 68 (9), September 1997; pgs. 3277-3295.
80.		Trebino, Rick et al.; "The Dilemma of Ultrashort-Laser-Pulse Intensity and Phase Measurement and Applications"; IEEE Journal of Quantum Electronics, Vol. 35, No. 4, April 1999; pgs. 418-420.
81.		Tull, J.X. et al.; "High-Resolution, Ultrafast Laser Pulse Shaping and Its Applications"; Advances in Magnetic and Optical Resonance; Vol. 20; pp1-65.
82.		VandenBout, D.A. et al.; "Discrete intensity jumps and intramolecular electronic energy transfer in the spectroscopy of single conjugated polymer molecules"; Science 277, 1074-1077 (1997).
83.		Walmsley, Ian A. et al.; "Characterization of the electric field of ultrashort optical pulses"; J. Opt. Soc. Am. B, Vol. 13, No. 11; November 1996; pgs. 2453-2463.
84.		Walowicz, K.A. et al.; "Multiphoton intrapulse interference 1: Control of multiphoton processes in condensed phases"; J. Phys. Chem. A 106 (41): 9369-9373 (Oct. 17, 2002).
85.		Warren, W.S.; "Chemistry with Photons"; Science; Vol. 262; November 12, 1993; pp. 1008-1009.
86.		Weinacht, T.C. et al.; "Controlling the shape of a quantum wavefunction"; Nature; January 1999; Vol. 397; pg. 233-235.
87.		Weiner, A.M. et al.; "Programmable Shaping of Femtosecond Optical Pulses by Use of 128-Element Liquid Crystal Phase Modulator"; IEEE Journal of Quantum Electronics; Vol. 28, No. 4; April 1992; pg. 908-920.
88.		Weiner, A.M.; "Femtosecond pulse shaping using spatial light modulators"; Rev. Sci. Instrum. Vol. 71(5); pp. 1929-1960 (2000).

Examiner:	Date Considered:
-----------	------------------

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.



<b>FORM HDP-1449 (Based on Form PTO-1449)</b>  <b>PATENT AND TRADEMARK OFFICE</b> <b>INFORMATION DISCLOSURE CITATION</b> (Use several sheets if necessary)  Sheet 10 of 10	ATTORNEY DOCKET NO.	SERIAL No.
	6550-000057/CPE	10/791,377
	APPLICANT	
	Dantus et al.	
	FILING DATE	GROUP
	March 2, 2004	not yet assigned

OTHER DOCUMENTS (including Author, Title, Date, Pertinent Pages, etc.)		
Ref. Desig.	Examiner's Initials	
89.		Weiner, Andrew M. et al.; "Femtosecond Pulse Shaping for Synthesis, Processing and Time-to-Space Conversion of Ultrafast Optical Waveforms"; IEEE Journal of Selected Topics in Quantum Electronics, Vol. 4, No. 2; March/April 1998; pgs. 317-331.
90.		Xu, C. et al.; "Two photon optical beam induced current imaging throughout backside of integrated circuits"; Appl. Phys. Lett. 71, 2578-2580 (1997).
91.		Yan, Y.J. et al.; "Electronic dephasing, vibrational relaxation, and solvent friction in molecular nonlinear optical line shapes"; J. Chems. Phys., October 15, 1988; pgs. 5160-5176.
92.		Yang, W. et al.; "High-ratio Electro-optical Data Compression for Massive Accessing Networks Using AOM-based Ultrafast Pulse Shaping"; Journal of Optical Communications; 2001; Vol. 22, No. 1; pg. 694-697.
93.		Yelin, D. et al.; "Laser scanning third-harmonic-generation microscopy in biology"; Optics Express; October 11, 1999; Vol. 5, No. 8; pp. 169-175.
94.		Zeidler, D. et al.; "Adaptive compression of tunable pulses from a non-collinear-type OPA to below 16 fs by feedback-controlled pulse shaping"; Appl. Phys. B 70[Suppl.]; 2000; pp. S125-S131.
95.		Zheng, Z. et al.; "Coherent control of second harmonic generation using spectrally phase coded femtosecond waveforms"; Chem. Phys. 267, 161-171 (2001).
96.		Zheng, Z. et al.; "Spectral phase correlation of coded femtosecond pulses by second-harmonic generation in thick nonlinear crystals"; Opt. Lett. 25, 984-986 (2000).
97.		Zipfel, W.R. et al.; "Nonlinear magic: multiphoton microscopy in the biosciences"; Nature Biotechnology, 21 (11): 1369-1377 (Nov. 2003).

Examiner:	Date Considered:
-----------	------------------

EXAMINER: Please initial if citation considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.